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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/662,258

09/15/2003

Shih-Zheng Kuo

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05/14/2007

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EXAMINER

KAU, STEVEN Y

ART UNIT

PAPER NUMBER

2625

MAIL DATE

DELIVERY MODE

05/14/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/662,258

Applicant(s)

KUO, SHIH-ZHENG

Examiner

Steven Kau

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2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Information Disclosure Statement

1. There is no Information Disclosure Statement submitted (IDS) by the applicants.

Therefore, no IDS is under consideration.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Should applicant desire to obtain the benefit of foreign priority under 35 U.S.C. 119(a)-(d) prior to declaration of an interference, a translation of the foreign application should be submitted under 37 CFR 1.55 in reply to this action.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tse et al (Tse) (US 6,198,845) in view of Swanson et al (Swanson) (US 5,321,501) and further in view of Tseng et al (Tseng) (US 7,126,728).

With regard to claim 1, Tse discloses a method for determining document background, in that he teaches an image compensating method, comprising: using a

plurality of scanning lines to scan a document and a longitudinal black and white pattern (Figures 1 & 13, col 3, lines 23-37), in order to produce a plurality of actual gray level values for a plurality of pixels with respect to each of the scanning lines and the document (Figures 2-7, col 3, lines 38-59), as well as a correctional gray level value for complete black and a correctional gray level value for complete white with respect to the longitudinal black and white pattern (Figures 6 & 7, col 5, lines 8-26); and obtaining a compensational gray level value with respect to the actual gray level value for each of the pixels according to the correctional gray level value for complete black, the correctional gray level value for complete white, a theoretical gray level value for complete black, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels (Figures 10, 12-13, col 7, lines 5-55).

Tse differs from claim 1, in that he does not teach to scan a longitudinal pattern.

Swanson discloses a method and apparatus for optical imaging, in that he teaches scanning a longitudinal pattern (Figures 8A-8C, col 14, lines 44-67 & col 15, lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Tse to include scanning a longitudinal pattern taught by Swanson because there is a need to improve optical imaging particularly electronic scanned systems (col 2, lines 25-28).

With regard to claim 2, Tse and Swanson differ from claim 2, in that they do not teach a scanner comprising a top & a chassis.

Tseng discloses a linear guiding mechanism for a platform type optical scanner, in that he teaches a scanner comprising a top {e.g. upper surface, etc.} (Figures 2A & 2B, col 5, lines 20-30); a chassis, which is movable under the top; and a scanning platform that is located on the top and used to be aligned with the document, wherein the longitudinal black and white pattern is located on an inner wall of the top on a side near the scanning platform, so as to allow the scanner to perform image brightness compensation on an image when the chassis of the scanner scans the document (Figures 2A & 2B, col 3, lines 27-54).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Tse and Swanson to include a scanner comprising a top & a chassis taught by Tseng to provide a low cost, smaller platform size of a linear guiding mechanism scanner (col 2, lines 16-25).

With regard to claim 3, Tse teaches calculating $[(\text{each of the actual gray level values with respect to each of the pixels} - \text{the correctional gray level value for complete black}) / (\text{the correctional gray level value for complete white} - \text{the correctional gray level value for complete black}) \times (\text{the theoretical gray level value for complete white} - \text{the theoretical gray level value for complete black})]$, so as to obtain the compensational gray level value for each of the pixel {e.g. Tse discloses flowcharts, equations and formula to calculate correction grey level value, equations 2-19, cols 4-7} (Figures 12A, 12B & 13, col 8, lines 6-67 & col 9, lines 1-26).

With regard to claim 4, Tse teaches that using a plurality of scanning lines to scan a document and a longitudinal complete white pattern (Figures 1 & 13, col 3, lines

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23-37), in order to produce a plurality of actual gray level values for a plurality of pixels with respect to each of the scanning lines and the document (Figures 2-7, col 3, lines 38-59), as well as a correctional gray level value for complete white with respect to the longitudinal white pattern (Figures 6 & 7, col 5, lines 8-26); and obtaining a compensational gray level value with respect to the actual gray level value for each of the pixels according to the correctional gray level value for complete white, a theoretical gray level value for complete white, and the actual gray level value for each of the pixels (Figures 10, 12-13, col 7, lines 5-55).

Tse differs from claim 1, in that he does not teach to scan a longitudinal pattern.

Swanson discloses a method and apparatus for optical imaging, in that he teaches scanning a longitudinal pattern (Figures 8A-8C, col 14, lines 44-67 & col 15, lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Tse to include scanning a longitudinal pattern taught by Swanson because there is a need to improve optical imaging particularly electronic scanned systems (col 2, lines 25-28).

With regard to claim 5, the structure elements of method claim 2 perform all steps of method claim 5. Thus claim 5 is rejected under 103(a) for the same reason discussed in the rejection of claim 2.

With regard to claim 6, the structure elements of method claim 3 perform all steps of method claim 6. Thus claim 6 is rejected under 103(a) for the same reason discussed in the rejection of claim 3.

With regard to claim 7, Tse teaches that using a plurality of scanning lines to scan a document and a longitudinal complete black pattern (Figures 1 & 13, col 3, lines 23-37), in order to produce a plurality of actual gray level values for a plurality of pixels with respect to each of the scanning lines and the document (Figures 2-7, col 3, lines 38-59), as well as a correctional gray level value for complete black with respect to the longitudinal black pattern; and obtaining a compensational gray level value with respect to the actual gray level value for each of the pixels according to the correctional gray level values for complete black, a theoretical gray level value for complete black, and the actual gray level value for each of the pixels (Figures 10, 12-13, col 7, lines 5-55).

Tse differs from claim 1, in that he does not teach to scan a longitudinal pattern.

Swanson discloses a method and apparatus for optical imaging, in that he teaches scanning a longitudinal pattern (Figures 8A-8C, col 14, lines 44-67 & col 15, lines 1-8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Tse to include scanning a longitudinal pattern taught by Swanson because there is a need to improve optical imaging particularly electronic scanned systems (col 2, lines 25-28).

With regard to claim 8, the structure elements of method claim 2 perform all steps of method claim 8. Thus claim 8 is rejected under 103(a) for the same reason discussed in the rejection of claim 2.

With regard to claim 9, the structure elements of method claim 3 perform all steps of method claim 9. Thus claim 9 is rejected under 103(a) for the same reason discussed in the rejection of claim 3.

Correspondence Information

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement is traversed (37 CFR 1.143).


Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is (571) 270-1120. The examiner can normally be reached on Monday to Friday, from 8:30 AM – 5:30 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Kau
Patent Examiner
Division: 2625
May 9, 2007



TWYLER LAMB
SUPERVISORY PATENT EXAMINER